

CLAIMS

What is claimed is:

1. A non-woven protective garment comprising a composite barrier fabric consisting of several layers bonded to each other having enhanced reversible thermal properties wherein at least one layer contains finely divided phase change materials.
2. A non-woven protective garment according to claim 1, wherein at least one layer of the composite barrier fabric consists of an elastomeric material.
3. A non-woven protective garment according to claim 1, wherein the layer containing the finely divided phase change materials is an elastomeric material.
4. A non-woven protective garment according to claim 1, wherein the layer which contains the finely divided phase change material is arranged on the inside of the garment.
5. A non-woven protective garment according to claim 1, wherein the layer which contains the finely divided phase change material is bonded to the non-woven fabric substrate the composite barrier fabric consists of.
6. A non-woven protective garment according to claim 1, wherein the layer which contains the finely divided phase change material is bonded to the non-woven fabric substrate the composite barrier fabric consists of replacing a barrier film layer.
7. A non-woven protective garment according to claim 1, wherein a non-woven fabric substrate is arranged between an outside barrier film layer and an inside layer of an elastomeric material with incorporated phase change material.
8. A non-woven protective garment according to claim 1, wherein a non-woven fabric substrate is arranged between an outside barrier film layer and an inside layer of an elastomeric material with incorporated phase change material which replaces a barrier film layer.
9. A non-woven protective garment according to claim 1, wherein a non-woven fabric substrate is arranged between two barrier films and the elastomeric material with incorporated phase change material is bonded to the inner barrier film adjacent to the wearer's body.
10. A non-woven protective garment according to claim 1, wherein a barrier film is arranged between two non-woven fabric substrates and the elastomeric material with incorporated

phase change material is bonded to the inner non-woven fabric substrate adjacent to the wearer's body.

11. A non-woven protective garment according to claim 1, wherein the barrier film which is adjacent to the wearer's body of a five-layer laminate is replaced by the elastomeric material with incorporated phase change material.
12. A non-woven protective garment according to claim 1, wherein two layers which contain the finely divided phase change material are arranged between two outer barrier film layers and an inner non-woven fabric substrate the composite barrier fabric consists of.
13. A non-woven protective garment according to claim 1, wherein the layer which contains the finely divided phase change material is bonded to a non-woven fabric substrate of the composite barrier fabric by lamination.
14. A non-woven protective garment according to claim 1, wherein the layer which contains the finely divided phase change material is bonded to a barrier film of the composite fabric substrate by lamination.
15. A non-woven protective garment according to claim 1, wherein the layer which contains the finely divided phase change material is bonded to a non-woven fabric substrate of the composite barrier fabric by coating.
16. A non-woven protective garment according to claim 1, wherein the layer which contains the finely divided phase change material is bonded to a non-woven fabric substrate and a barrier film of the composite barrier fabric by lamination.
17. A non-woven protective garment according to claim 1, wherein the phase change material is a crystalline alkyl hydrocarbon.
18. A non-woven protective garment according to claim 1, wherein the phase change material is a salt hydrate.
19. A non-woven protective garment according to claim 1, wherein the phase change materials have melting points in the range between 20 °C and 60 °C.
20. A non-woven protective garment according to claim 1, wherein the phase change materials have melting points in the range between 25 °C and 35 °C.
21. A non-woven protective garment according to claim 1, possessing a latent heat storage capacity between 40 kJ and 60 kJ.